# RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: _10/574,194_

Source: _1FWP_

Date Processed by STIC: _4/13/06_

# *ENTERED*

IFWP

RAW SEQUENCE LISTING                          DATE: 04/13/2006
PATENT APPLICATION:   US/10/574,194           TIME: 10:04:16

            Input Set : **A:\07917-259US1.txt**
            Output Set: **N:\CRF4\04132006\J574194.raw**

```
       4  <110> APPLICANT: Urano, Fumihiko
       7  <120> TITLE OF INVENTION: METHODS FOR DIAGNOSING AND TREATING
       8        ENDOPLASMIC RETICULUM (ER) STRESS DISEASES
      11  <130> FILE REFERENCE: 07917-259US1
C-->  13  <140> CURRENT APPLICATION NUMBER: US/10/574,194
C-->  13  <141> CURRENT FILING DATE: 2006-03-28
      13  <150> PRIOR APPLICATION NUMBER: PCT/US2004/033516
      14  <151> PRIOR FILING DATE: 2004-10-12
      16  <150> PRIOR APPLICATION NUMBER: US 60/510,262
      17  <151> PRIOR FILING DATE: 2003-10-09
      19  <150> PRIOR APPLICATION NUMBER: US 60/519,736
      20  <151> PRIOR FILING DATE: 2003-11-12
      22  <150> PRIOR APPLICATION NUMBER: US 60/568,468
      23  <151> PRIOR FILING DATE: 2004-05-05
      26  <160> NUMBER OF SEQ ID NOS: 41
      28  <170> SOFTWARE: FastSEQ for Windows Version 4.0
      30  <210> SEQ ID NO: 1
      31  <211> LENGTH: 1761
      32  <212> TYPE: DNA
      33  <213> ORGANISM: Homo sapiens
      35  <400> SEQUENCE: 1
      36  ctcgagctat ggtggtggtg gcagccgcgc cgaacccggc cgacgggacc cctaaagttc    60
      37  tgcttctgtc ggggcagccc gcctccgccg ccggagcccc ggccggccag gccctgccgc   120
      38  tcatggtgcc agcccagaga ggggccagcc cggaggcagc gagcggggggg ctgccccagg   180
      39  cgcgcaagcg acagcgcctc acgcacctga gccccgagga gaaggcgctg aggaggaaac   240
      40  tgaaaaacag agtagcagct cagactgcca gagatcgaaa gaaggctcga atgagtgagc   300
      41  tggaacagca agtggtagat ttagaagaag agaaccaaaa acttttgcta gaaaatcagc   360
      42  ttttacgaga gaaaactcat ggccttgtag ttgagaacca ggagttaaga cagcgcttgg   420
      43  ggatggatgc cctggttgct gaagaggagg cggaagccaa ggggaatgaa gtgaggccag   480
      44  tggccgggtc tgctgagtcc gcagcaggtg caggcccagt tgtcacccct ccagaacatc   540
      45  tccccatgga ttctggcggt attgactctt cagattcaga gtctgatatc ctgttgggca   600
      46  ttctggacaa cttggaccca gtcatgttct tcaaatgccc ttccccagag cctgccagcc   660
      47  tggaggagct cccagaggtc tacccagaag acccagttc cttaccagcc tccctttctc   720
      48  tgtcagtggg gacgtcatca gccaagctgg aagccattaa tgaactaatt cgttttgacc   780
      49  acatatatac caagcccta gtcttagaga taccctctga gacagagagc caagctaatg   840
      50  tggtagtgaa aatcgaggaa gcacctctca gcccctcaga gaatgatcac cctgaattca   900
      51  ttgtctcagt gaaggaagaa cctgtagaag atgacctcgt tccggagctg ggtatctcaa   960
      52  atctgctttc atccagccac tgcccaaagc catcttcctg cctactggat gcttacagtg  1020
      53  actgtggata cggggggttcc ctttccccat tcagtgacat gtcctctctg cttggtgtaa  1080
      54  accattcttg ggaggacact tttgccaatg aactctttcc ccagctgatt agtgtctaag  1140
      55  gaatgatcca atactgttgc cctttcctt gactattaca ctgcctggag gatagcagag  1200
      56  aagcctgtct gtacttcatt caaaaagcca aaatagagag tatacagtcc tagagaattc  1260
      57  ctctatttgt tcagatctca tagatgaccc ccaggtattg tcttttgaca tccagcagtc  1320
```

**RAW SEQUENCE LISTING**          DATE: 04/13/2006
PATENT APPLICATION:  **US/10/574,194**     TIME: 10:04:16

Input Set : **A:\07917-259US1.txt**
Output Set: **N:\CRF4\04132006\J574194.raw**

```
58 caaggtattg agacatatta ctggaagtaa gaaatattac tataattgag aactacagct    1380
59 tttaagattg tacttttatc ttaaaagggt ggtagttttc cctaaaatac ttattatgta    1440
60 agggtcatta gacaaatgtc ttgaagtaga catggaattt atgaatggtt ctttatcatt    1500
61 tctcttcccc cttttttggca tcctggcttg cctccagttt taggtccttt agtttgcttc    1560
62 tgtaagcaac gggaacacct gctgagggg ctctttccct catgtatact tcaagtaaga    1620
63 tcaagaatct tttgtgaaat tatagaaatt tactatgtaa atgcttgatg gaattttttc    1680
64 ctgctagtgt agcttctgaa aggtgctttc tccatttatt taaaactacc catgcaatta    1740
65 aaaggccttc gtggcctcga g                                             1761
```

67 <210> SEQ ID NO: 2
68 <211> LENGTH: 376
69 <212> TYPE: PRT
70 <213> ORGANISM: Homo sapiens

72 <400> SEQUENCE: 2

```
73 Met Val Val Val Ala Ala Ala Pro Asn Pro Ala Asp Gly Thr Pro Lys
74  1               5                  10                  15
75 Val Leu Leu Leu Ser Gly Gln Pro Ala Ser Ala Ala Gly Ala Pro Ala
76             20                  25                  30
77 Gly Gln Ala Leu Pro Leu Met Val Pro Ala Gln Arg Gly Ala Ser Pro
78          35                  40                  45
79 Glu Ala Ala Ser Gly Gly Leu Pro Gln Ala Arg Lys Arg Gln Arg Leu
80     50                  55                  60
81 Thr His Leu Ser Pro Glu Glu Lys Ala Leu Arg Arg Lys Leu Lys Asn
82 65                  70                  75                  80
83 Arg Val Ala Ala Gln Thr Ala Arg Asp Arg Lys Lys Ala Arg Met Ser
84                 85                  90                  95
85 Glu Leu Glu Gln Gln Val Val Asp Leu Glu Glu Glu Asn Gln Lys Leu
86             100                 105                 110
87 Leu Leu Glu Asn Gln Leu Leu Arg Glu Lys Thr His Gly Leu Val Val
88         115                 120                 125
89 Glu Asn Gln Glu Leu Arg Gln Arg Leu Gly Met Asp Ala Leu Val Ala
90     130                 135                 140
91 Glu Glu Glu Ala Glu Ala Lys Gly Asn Glu Val Arg Pro Val Ala Gly
92 145                 150                 155                 160
93 Ser Ala Glu Ser Ala Ala Gly Ala Gly Pro Val Val Thr Pro Pro Glu
94                 165                 170                 175
95 His Leu Pro Met Asp Ser Gly Gly Ile Asp Ser Ser Asp Ser Glu Ser
96             180                 185                 190
97 Asp Ile Leu Leu Gly Ile Leu Asp Asn Leu Asp Pro Val Met Phe Phe
98         195                 200                 205
99 Lys Cys Pro Ser Pro Glu Pro Ala Ser Leu Glu Glu Leu Pro Glu Val
100    210                 215                 220
101 Tyr Pro Glu Gly Pro Ser Ser Leu Pro Ala Ser Leu Ser Leu Ser Val
102 225                 230                 235                 240
103 Gly Thr Ser Ser Ala Lys Leu Glu Ala Ile Asn Glu Leu Ile Arg Phe
104                 245                 250                 255
105 Asp His Ile Tyr Thr Lys Pro Leu Val Leu Glu Ile Pro Ser Glu Thr
106             260                 265                 270
107 Glu Ser Gln Ala Asn Val Val Val Lys Ile Glu Glu Ala Pro Leu Ser
108     275                 280                 285
```

**RAW SEQUENCE LISTING**    DATE: 04/13/2006
PATENT APPLICATION:  US/10/574,194    TIME: 10:04:16

Input Set : A:\07917-259US1.txt
Output Set: N:\CRF4\04132006\J574194.raw

```
109 Pro Ser Glu Asn Asp His Pro Glu Phe Ile Val Ser Val Lys Glu Glu
110     290             295             300
111 Pro Val Glu Asp Asp Leu Val Pro Glu Leu Gly Ile Ser Asn Leu Leu
112 305             310             315             320
113 Ser Ser Ser His Cys Pro Lys Pro Ser Ser Cys Leu Leu Asp Ala Tyr
114             325             330             335
115 Ser Asp Cys Gly Tyr Gly Gly Ser Leu Ser Pro Phe Ser Asp Met Ser
116         340             345             350
117 Ser Leu Leu Gly Val Asn His Ser Trp Glu Asp Thr Phe Ala Asn Glu
118     355             360             365
119 Leu Phe Pro Gln Leu Ile Ser Val
120     370             375
122 <210> SEQ ID NO: 3
123 <211> LENGTH: 1787
124 <212> TYPE: DNA
125 <213> ORGANISM: Homo sapiens
127 <400> SEQUENCE: 3
128 ctcgagctat ggtggtggtg gcagccgcgc cgaacccggc cgacgggacc cctaaagttc     60
129 tgcttctgtc ggggcagccc gcctccgccg ccggagcccc ggccggccag gccctgccgc    120
130 tcatggtgcc agcccagaga ggggccagcc cggaggcagc gagcggggg ctgccccagg     180
131 cgcgcaagcg acagcgcctc acgcacctga gccccgagga gaaggcgctg aggaggaaac    240
132 tgaaaaacag agtagcagct cagactgcca gagatcgaaa gaaggctcga atgagtgagc    300
133 tggaacagca agtggtagat ttagaagaag agaaccaaaa acttttgcta gaaaatcagc    360
134 ttttacgaga gaaaactcat ggccttgtag ttgagaacca ggagttaaga cagcgcttgg    420
135 ggatggatgc cctggttgct gaagaggagg cggaagccaa ggggaatgaa gtgaggccag    480
136 tggccgggtc tgctgagtcc gcagcactca gactacgtgc acctctgcag caggtgcagg    540
137 cccagttgtc acccctccag aacatctccc catggattct ggcggtattg actcttcaga    600
138 ttcagagtct gatatcctgt tgggcattct ggacaacttg gacccagtca tgttcttcaa    660
139 atgcccttcc ccagagcctg ccagcctgga ggagctccca gaggtctacc cagaaggacc    720
140 cagttcctta ccagcctccc tttctctgtc agtggggacg tcatcagcca agctggaagc    780
141 cattaatgaa ctaattcgtt ttgaccacat atataccaag cccctagtct tagagatacc    840
142 ctctgagaca gagagccaag ctaatgtggt agtgaaaatc gaggaagcac ctctcagccc    900
143 ctcagagaat gatcaccctg aattcattgt ctcagtgaag gaagaacctg tagaagatga    960
144 cctcgttccg gagctgggta tctcaaatct gctttcatcc agccactgcc caaagccatc   1020
145 ttcctgccta ctggatgctt acagtgactg tggatacggg ggttcccttt ccccattcag   1080
146 tgacatgtcc tctctgcttg gtgtaaacca ttcttgggag gacacttttg ccaatgaact   1140
147 ctttccccag ctgattagtg tctaaggaat gatccaatac tgttgccctt ttccttgact   1200
148 attacactgc ctggaggata gcagagaagc ctgtctgtac ttcattcaaa aagccaaaat   1260
149 agagagtata cagtcctaga gaattcctct atttgttcag atctcataga tgaccccag   1320
150 gtattgtctt ttgacatcca gcagtccaag gtattgagac atattactgg aagtaagaaa   1380
151 tattactata attgagaact acagctttta agattgtact tttatcttaa aagggtggta   1440
152 gtttcccta aaatacttat tatgtaaggg tcattagaca aatgtcttga agtagacatg    1500
153 gaatttatga atggttcttt atcatttctc ttcccccttt ttggcatcct ggcttgcctc   1560
154 cagttttagg tcctttagtt tgcttctgta agcaacggga acacctgctg aggggctct    1620
155 ttccctcatg tatacttcaa gtaagatcaa gaatcttttg tgaaattata gaaatttact   1680
156 atgtaaatgc ttgatggaat tttttcctgc tagtgtagct tctgaaaggt gctttctcca   1740
157 tttatttaaa actacccatg caattaaaag gccttcgtgg cctcgag                 1787
159 <210> SEQ ID NO: 4
160 <211> LENGTH: 261
```

**RAW SEQUENCE LISTING**          DATE: 04/13/2006
PATENT APPLICATION:  **US/10/574,194**     TIME: 10:04:16

Input Set : **A:\07917-259US1.txt**
Output Set: **N:\CRF4\04132006\J574194.raw**

```
161 <212> TYPE: PRT
162 <213> ORGANISM: Homo sapiens
164 <400> SEQUENCE: 4
165 Met Val Val Val Ala Ala Ala Pro Asn Pro Ala Asp Gly Thr Pro Lys
166  1               5                   10                  15
167 Val Leu Leu Leu Ser Gly Gln Pro Ala Ser Ala Ala Gly Ala Pro Ala
168              20                  25                  30
169 Gly Gln Ala Leu Pro Leu Met Val Pro Ala Gln Arg Gly Ala Ser Pro
170          35                  40                  45
171 Glu Ala Ala Ser Gly Gly Leu Pro Gln Ala Arg Lys Arg Gln Arg Leu
172      50                  55                  60
173 Thr His Leu Ser Pro Glu Glu Lys Ala Leu Arg Arg Lys Leu Lys Asn
174 65                  70                  75                  80
175 Arg Val Ala Ala Gln Thr Ala Arg Asp Arg Lys Lys Ala Arg Met Ser
176              85                  90                  95
177 Glu Leu Glu Gln Gln Val Val Asp Leu Glu Glu Glu Asn Gln Lys Leu
178              100                 105                 110
179 Leu Leu Glu Asn Gln Leu Leu Arg Glu Lys Thr His Gly Leu Val Val
180          115                 120                 125
181 Glu Asn Gln Glu Leu Arg Gln Arg Leu Gly Met Asp Ala Leu Val Ala
182      130                 135                 140
183 Glu Glu Glu Ala Glu Ala Lys Gly Asn Glu Val Arg Pro Val Ala Gly
184 145                 150                 155                 160
185 Ser Ala Glu Ser Ala Ala Leu Arg Leu Arg Ala Pro Leu Gln Gln Val
186              165                 170                 175
187 Gln Ala Gln Leu Ser Pro Leu Gln Asn Ile Ser Pro Trp Ile Leu Ala
188          180                 185                 190
189 Val Leu Thr Leu Gln Ile Gln Ser Leu Ile Ser Cys Trp Ala Phe Trp
190          195                 200                 205
191 Thr Thr Trp Thr Gln Ser Cys Ser Ser Asn Ala Leu Pro Gln Ser Leu
192      210                 215                 220
193 Pro Ala Trp Arg Ser Ser Gln Arg Ser Thr Gln Lys Asp Pro Val Pro
194 225                 230                 235                 240
195 Tyr Gln Pro Pro Phe Leu Cys Gln Trp Gly Arg His Gln Pro Ser Trp
196          245                 250                 255
197 Lys Pro Leu Met Asn
198          260
200 <210> SEQ ID NO: 5
201 <211> LENGTH: 26
202 <212> TYPE: DNA
203 <213> ORGANISM: Homo sapiens
205 <400> SEQUENCE: 5
206 ctcagactac gtgcacctct gcagca                                    26
208 <210> SEQ ID NO: 6
209 <211> LENGTH: 210
210 <212> TYPE: PRT
211 <213> ORGANISM: Homo sapiens
213 <400> SEQUENCE: 6
214 Gly Ala Gly Pro Val Val Thr Pro Pro Glu His Leu Pro Met Asp Ser
```

**RAW SEQUENCE LISTING**  DATE: 04/13/2006
**PATENT APPLICATION:  US/10/574,194**  TIME: 10:04:16

Input Set : **A:\07917-259US1.txt**
Output Set: **N:\CRF4\04132006\J574194.raw**

```
215  1                      5                      10                     15
216  Gly Gly Ile Asp Ser Ser Asp Ser Glu Ser Asp Ile Leu Leu Gly Ile
217          20                     25                     30
218  Leu Asp Asn Leu Asp Pro Val Met Phe Phe Lys Cys Pro Ser Pro Glu
219          35                     40                     45
220  Pro Ala Ser Leu Glu Glu Leu Pro Glu Val Tyr Pro Glu Gly Pro Ser
221      50                     55                     60
222  Ser Leu Pro Ala Ser Leu Ser Leu Ser Val Gly Thr Ser Ser Ala Lys
223  65                     70                     75                     80
224  Leu Glu Ala Ile Asn Glu Leu Ile Arg Phe Asp His Ile Tyr Thr Lys
225                 85                     90                     95
226  Pro Leu Val Leu Glu Ile Pro Ser Glu Thr Glu Ser Gln Ala Asn Val
227                 100                    105                    110
228  Val Val Lys Ile Glu Glu Ala Pro Leu Ser Pro Ser Glu Asn Asp His
229              115                    120                    125
230  Pro Glu Phe Ile Val Ser Val Lys Glu Glu Pro Val Glu Asp Asp Leu
231      130                    135                    140
232  Val Pro Glu Leu Gly Ile Ser Asn Leu Leu Ser Ser Ser His Cys Pro
233  145                    150                    155                    160
234  Lys Pro Ser Ser Cys Leu Leu Asp Ala Tyr Ser Asp Cys Gly Tyr Gly
235              165                    170                    175
236  Gly Ser Leu Ser Pro Phe Ser Asp Met Ser Ser Leu Leu Gly Val Asn
237              180                    185                    190
238  His Ser Trp Glu Asp Thr Phe Ala Asn Glu Leu Phe Pro Gln Leu Ile
239          195                    200                    205
240  Ser Val
241      210
243  <210> SEQ ID NO: 7
244  <211> LENGTH: 95
245  <212> TYPE: PRT
246  <213> ORGANISM: Homo sapiens
248  <400> SEQUENCE: 7
249  Leu Arg Leu Arg Ala Pro Leu Gln Gln Val Gln Ala Gln Leu Ser Pro
250  1                      5                      10                     15
251  Leu Gln Asn Ile Ser Pro Trp Ile Leu Ala Val Leu Thr Leu Gln Ile
252              20                     25                     30
253  Gln Ser Leu Ile Ser Cys Trp Ala Phe Trp Thr Thr Trp Thr Gln Ser
254          35                     40                     45
255  Cys Ser Ser Asn Ala Leu Pro Gln Ser Leu Pro Ala Trp Arg Ser Ser
256      50                     55                     60
257  Gln Arg Ser Thr Gln Lys Asp Pro Val Pro Tyr Gln Pro Pro Phe Leu
258  65                     70                     75                     80
259  Cys Gln Trp Gly Arg His Gln Pro Ser Trp Lys Pro Leu Met Asn
260              85                     90                     95
262  <210> SEQ ID NO: 8
263  <211> LENGTH: 24
264  <212> TYPE: DNA
265  <213> ORGANISM: Artificial Sequence
267  <220> FEATURE:
```

RAW SEQUENCE LISTING ERROR SUMMARY          DATE: 04/13/2006
PATENT APPLICATION:  US/10/574,194          TIME: 10:04:17

Input Set : **A:\07917-259US1.txt**
Output Set: **N:\CRF4\04132006\J574194.raw**

**Please Note:**
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:20; Xaa Pos. 6

**VERIFICATION SUMMARY**    DATE: 04/13/2006
PATENT APPLICATION:  **US/10/574,194**    TIME: 10:04:17

Input Set : **A:\07917-259US1.txt**
Output Set: **N:\CRF4\04132006\J574194.raw**

L:13 M:270 C: Current Application Number differs, Replaced Current Application No
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:408 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0